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For Discussion Purposes Only

April 12, 2001

**Water Quality Improvement Strategy
for Federal Columbia River Power System (FCRPS)**

The U.S. Army Corps of Engineers in coordination with the other "Federal Action Agencies" (Bureau of Reclamation and Bonneville Power Administration) should commit in the Record of Decision to develop a water quality improvement strategy for the operation of the Columbia and Snake Rivers dams to move toward water quality standard attainment. It is expected that the Reasonable and Prudent Alternatives from the 2000 NMFS FCRPS Biological Opinion will be implemented. For that reason, this strategy goes beyond that Biological Opinion and provides a minimum level demonstration of a commitment to water quality improvement in the FCRPS.

EPA's goal in proposing this strategy is to maximize the improvement of water quality while minimizing any impact on power generating capacity. EPA will work with the Corps and the other Federal Action Agencies to ensure that the Record of Decision attains that goal.

- The Corps, with the other action agencies, should commit to fully support the development and implementation of the Columbia and Snake River Mainstem dissolved gas and temperature Total Maximum Daily Loads (TMDLs) currently being developed by EPA and the states of Idaho, Oregon and Washington in coordination with Columbia Basin Tribes. (NMFS Biological Opinion, Conservation Recommendation 11.8. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion)
- The Action Agencies should commit to share data and modeling to assist in the development of TMDLs. (EPA specific recommendation to implement above Conservation Recommendation. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion)

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- fiscal issue counsel
- The Action Agencies should allocate \$1 million in the FY2002 Columbia River Fish Mitigation Program to augment technical analyses necessary for TMDL development. (EPA specific recommendation to implement above Conservation Recommendation. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion)

- fed agency agenda
B. letter list
comes out of meeting
cost
collaboration
- The Corps, with the other action agencies, should commit by December 31, 2001, to develop a specific list of both short and long term measures to reduce temperature in the Columbia and Lower Snake mainstem with the goal of achieving TMDL allocations. This time line is consistent with the current TMDL work effort . (EPA specific recommendation to implement above Conservation Recommendation. Reference: July 31, 2000 letter from Charles Findley, EPA, to General Strock, Corps)

The Action Agencies should commit to develop more detailed water quality improvement cost estimates for mainstem projects. (EPA specific recommendation to implement above Conservation Recommendation. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion)

state


The Corps should commit to engage other Snake river managers regarding dam modifications and operations to improve water temperature; e.g., work with Idaho Power to install selective withdrawal devices at Brownlee Dam. (EPA specific recommendation. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion)



- letter
copy
NMFS
FWJ
- The Corps, with the other action agencies, should commit to develop and implement an augmented and more comprehensive monitoring program for the Columbia and Snake River mainstem for dissolved gas and temperature. (EPA specific recommendation and Biological Opinion, RPA in Sect. 9.6.1.7.2. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion)


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 • The Corps should commit to use water temperature triggers (beginning at 64 degrees) to initiate emergency measures to reduce exposure of fish to high temperatures at McNary and other facilities. (EPA specific recommendation to implement RPA in Sect. 9.6.1.7.2. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion)

 As a commitment to water quality improvement, the Corps should acknowledge the critical importance of Dworshak Dam in water temperature impacts on the Columbia and Snake River and commit to full participation in decision making related to Dworshak Dam operational and flow decisions. The Corps should also commit to the ^{as soon as possible} ~~immediate~~ modification of the Dworshak fish hatchery water supply to enable cooler water releases from the Dam (RPA in Sect. 9.6.1.7.6. Reference: September 29, 2000, letter from Charles Findley, EPA, to Donna Darm, NMFS, on comments on Draft Biological Opinion) 

 The Corps, with the other action agencies, should commit to immediate implementation of the actions identified in 2000 Biological Opinion Appendix B, Table B-3. (Conservation Recommendation 11.9)

- Lower Granite - Long-term gas abatement alternative selection study; side channel spillway or raised stilling basin.
- Little Goose - Long-term gas abatement alternative selection study; side channel spillway or raised stilling basin.
- Lower Monumental - Long-term gas abatement alternative selection study; side channel spillway or raised stilling basin.
- Ice Harbor - Long-term gas abatement alternative selection study; side channel spillway or raised stilling basin.
- McNary - Long-term gas abatement alternative selection study; side channel spillway or raised stilling basin.
- Bonneville - Long term gas abatement alternative selection study; baffled spillway.
- Grand Coulee - Long term gas abatement alternative selection study.

Martin → commitment to a

10 yr ROD → process →

have a month - do not think it
is possible for a list of Particular -

Fred → EPA send request to these agencies
to participate in IMOL -
→ list of actions -

~~***~~ Mtgs w/ action agencies →

~~***~~
draft
for Davis
mtg